

What is claimed is:

- 1.A high strength Mg based alloy, which contains 2 to 20 % of Al by weight; 0.1 to 10 % of Zn; 0.1 to 15 % of Sn; and 0.05 to 1.5 % of Mn.
- 5 2.A high strength Mg based alloy, which contains 2 to 20 % of Al by weight; 0.1 to 10 % of Zn; 0.1 to 15 % of Sn; and 0.05 to 1.5 % of Mn, and has crystal size of 10 to 300  $\mu\text{m}$ .
- 3.A high strength Mg based alloy, which contains 18 to 20 % of Al by weight; 0.1 to 5 % of Zn; 0.1 to 10 % of Sn; and  
 10 less than 1.5 % of Mn, and has a tensile strength (x) at 20 °C larger than 240 MPa; and an elongation (y) larger than 0.5 % and at the same time larger than a value calculated by  $y = -0.295x + 78$ .
- 4.A high strength Mg based alloy, which contains 12 to 15 %  
 15 of Al by weight; 0.1 to 5 % of Zn; 1 to 10 % of Sn; 0.1 to 0.5 % of Mn, and the remainder contains Mg more than 75 %.
- 5.A high strength Mg based alloy, which contains 12 to 15 % of Al by weight; 0.1 to 5 % of Zn; 1 to 10 % of Sn; 0.1 to 0.5 % of Mn; one kind or more than two kinds of elements  
 20 selected from the group consisting of Ca, Si and rear-earth elements of which the total content is less than 5 %; at least one kind of element selected from the group consisting of Sr and Sb of which the total content is less than 1 %; and the remainder which is consisting essentially  
 25 of Mg.
- 6.A Mg based casting alloy, which contains 2 to 20 % of Al by weight; and 0.1 to 15 % of Sn.

7.A Mg based casting alloy, which contains 2 to 20 % of Al by weight; 0.1 to 10 % of Sn; and less than 1.5 % of Mn.

8.A high strength Mg based alloy, which contains 10 to 15 % of Al by weight; 0.5 to 3 % of Zn; 1.5 to 4.5 % of Sn; 0.05 to 0.5 % of Mn; and the remainder which is consisting essentially of Mg.

9.A high strength Mg based alloy according to any one of claims 1 to 4, which contains one kind or more than two kinds of elements selected from the group consisting of Ca, Si and rear-earth elements of which the total content is less than 5 % by weight; and at least one kind of element selected from the group consisting of Sr and Sb of which the total content is less than 1 %.

10.A Mg based casting alloy according to any one of claims 6 to 8, which contains one kind or more than two kinds of elements selected from the group consisting of Ca, Si and rear-earth elements of which the total content is less than 5 % by weight; and at least one kind of element selected from the group consisting of Sr and Sb of which the total content is less than 1 %.

11.A die cast article, which is molded using a molten metal of the alloy according to any one of claims 1 to 10.

12.A semi-solid mold article, which is molded using a molten metal of a mixture of liquid phase and solid phase of the alloy according to any one of claims 1 to 10.

13.A liquid crystal display front of personal computer, which made of the alloy according to any one of claims

11 and 12.

14.A main body upper case of a mobile type liquid crystal projector, which made of the alloy according to any one of claims 11 and 12.

5 15.An impeller of a home electric vaccum cleaner, which made of the alloy according to any one of claims 11 and 12.

16.A cover and case of a hand-potable telephone, which made of the alloy according to any one of claims 11 and  
10 12.

17. A front cabinet of a television set, which made of the alloy according to any one of claims 11 and 12.

18.A steering wheel core of a vehicle, which made of the alloy according to any one of claims 11 and 12.

15 19.A case body of a video-camera, which made of the alloy according to any one of claims 11 and 12.

20.A rid of an MD player, which made of the alloy according to any one of claims 11 and 12.

21.A case body of a compact camera, which made of the  
20 alloy according to any one of claims 11 and 12.